

## IN THE CLAIMS

Please Cancel Claim 2 and amend the remaining Claims in accordance with the following mark-up copy:

1. (Currently Amended) An optical integrated circuit, comprising:

a flexible plastic tape having a conductive pattern disposed on a top surface thereof;

a die mounted to the top surface of the tape and electrically coupled to the conductive pattern for providing an electronic function of the integrated circuit;

a support structure surrounding the die and bonded to the top surface of the tape;

a transparent cover mounted over the die such that an optically active surface of the die is accessible through the transparent cover; and

a plurality of external contacts disposed on a bottom surface of the tape opposite the top surface and electrically coupled to the conductive pattern through holes formed in the tape from the bottom surface to the top surface, for providing an electrical interface to the die.

2. Canceled.

3. (Original) The optical integrated circuit of Claim 2, wherein the tape is a polyimide tape.

4. (Amended) The optical integrated circuit of Claim 2, wherein the conductive pattern comprises an etched copper pattern on the top surface of the flexible plastic tape.

5. (Original) The optical integrated circuit of Claim 1, wherein the support structure is a thin metal sheet having an aperture for accepting the die.

6. (Original) The optical integrated circuit of Claim 1, wherein the support structure is a thin epoxy film.

7. (Original) The optical integrated circuit of Claim 1, wherein the transparent cover is bonded to the die by an optically transparent adhesive to form an integrated covered die, and further comprising an encapsulant disposed between the support structure and the covered die.

8. (Original) The optical integrated circuit of Claim 7, wherein a surface of the transparent cover opposite the die is substantially conformal to a top surface of the support structure opposite the tape.

9. (Original) The optical integrated circuit of Claim 1, wherein the transparent cover is bonded to a top surface of the support structure.

10. (Original) The optical integrated circuit of Claim 1, wherein the transparent cover is a glass cover.

11. (Original) The optical integrated circuit of Claim 1, wherein the plurality of electrical contacts are solder balls forming a ball grid array, and wherein the tape is perforated to accept a portion of the solder balls.

12. (Previously Amended) The optical integrated circuit of Claim 11, wherein the conductive pattern is disposed on the top surface of the tape opposite the solder balls and wherein the solder balls contact the conductive pattern through the perforations.

13. (Original) The optical integrated circuit of Claim 1, further comprising a plurality of wires for electrically coupling the die to the conductive pattern, wherein the wires are bonded to the conductive pattern and the die.

14. (Currently Amended) An optical integrated circuit, comprising:

a flexible plastic tape having a conductive pattern disposed on a top surface thereof;

a die mounted to the top surface of the tape for providing an electronic function of the optical integrated circuit;

a transparent cover mounted over the die such that an optically active surface of the die is accessible through the transparent cover;

a plurality of external contacts disposed on a bottom surface of the tape opposite the top surface and electrically coupled to the conductive pattern through holes formed in the tape from the bottom surface to the top surface, for providing an electrical interface to the die; and

means for mounting the transparent cover over the die.

Claims 15-20 were previously canceled.

21. (Currently Amended) An optical integrated circuit, comprising:

a flexible plastic tape having a conductive pattern disposed on a top surface thereof;

a die mounted to the top surface of the tape and electrically coupled to the conductive pattern for providing an electronic function of the integrated circuit;

means surrounding the die and bonded to the top surface of the tape for providing support;

means mounted over the die for allowing an optically active surface of the die to be accessible through the means mounted over the die; and

a plurality of external contacts disposed on a bottom surface of the tape opposite the top surface and electrically coupled to the conductive pattern through holes formed in the tape from the bottom surface to the top surface, for providing an electrical interface to the die.

22. (Original) The optical integrated circuit of Claim 21, wherein the means surrounding the die is a thin metal support structure having an aperture for accepting the die.

23. (Original) The optical integrated circuit of Claim 21, wherein the means surrounding the die is a thin epoxy film.

24. (Original) The optical integrated circuit of Claim 21, wherein the means mounted over the die is bonded to the die by an optically transparent adhesive to form an integrated covered die, and further comprising an encapsulant disposed between the means surrounding and the covered die.

25. (Original) The optical integrated circuit of Claim 21, wherein the means mounted over the die is bonded to a top surface of the means surrounding the die.

26. (Original) The optical integrated circuit of Claim 21, wherein the means mounted over the die is a glass cover.